

$$3. \underline{167} \times \underline{2183} \times \underline{497} \times 339 \times \underline{\underline{235}} \times 111 \times 1039 \times 251 \times 563 = ?$$

(a) 0

(b) 1

~~(c) 5~~

(d) 4

$$7 \times 3 \times 7 \times 9 \times 5 \times 1 \times 9 \times 1 \times 3$$

Arrows indicating prime factors: 1, 7, 3, 5, 5, 5, 5, 5

5 x सम (even) = 0

5 x विषम (odd) = 5

$$\begin{array}{l} 5 \times 1 \\ \times 3 \\ \times 5 \\ \times 7 \\ \times 9 \end{array}$$

Maths by Aditya Patel Sir



(a)  $5^{\frac{1}{2}}$

$$3^4 \Rightarrow 81$$

~~568932710000000000~~

$$5. (215\underline{\underline{3}})^{167} \times (8267)^{153} = ?$$

(a) 4

~~(b) 9~~

(c) 5

(d) 6

$$3^{67} \times 7^{53}$$

$$3^3 \times 7^1$$

$$7 \times 7$$

$$9$$

$$6. \textcircled{2^{3^4}} \times 3^{4^5} \times \textcircled{4^{5^6}} \times \textcircled{5^{6^7}} \times \textcircled{6^{7^8}} \times 7^{8^9} \times \textcircled{8^{9^{10}}} = ?$$

(a) 1      ~~(b) 0~~      (c) 2      (d) 8

$$5 \times \begin{matrix} \text{सम} \\ \text{even} \end{matrix} = 0$$

$$7. \ 217^{413} \times 819^{547} \times 414^{624} \times 342^{812} = ?$$

(a) 4

(b) 8

(c) 6

(d) 5

$$7^{13} \times 9^{47} \times 4^{24} \times 2^{12}$$

$$7^1 \times 9^3 \times 4^4 \times 2^4$$

$$= \underbrace{7 \times 9 \times 6}_{3} \times \underbrace{6 \times 6}_6$$

Ans (8)

$$8. (137^{13})^{47} = ?$$

(a) 3

(b) 5

(c) 7

(d) 9

$$(13 \times 47)$$

$$= 137$$

$$= 137^{611} \div 4$$

$$= 7^3 \Rightarrow 34 \text{ (3)}$$

\* शेषफल प्रमेय

Remainder Theorem

$$\frac{13 \times 47}{4} =$$

$$1 \times 3 \Rightarrow \textcircled{3}$$

$$7^3 = 343 = \textcircled{3} \text{ Ans}$$

9.  $122^{737} - 37^{195} = ?$

(a) 3

(b) 4

~~(c) 9~~

(d) 6

$$\begin{array}{r} \text{---} \text{---} \text{---} \text{---} 12 \\ \text{---} \text{---} \text{---} \text{---} 3 \\ \hline \end{array}$$

(9) ✓  
Ans

$$2^{37} - 7^{95}$$

$$2^1 - 7^3$$

$$2 - 3$$

10.  $(8735^{827} + 1693^{169})(7339^{1256} - 244^{311}) \times 5827^{935}$   
 (a) 3                      (b) 5                      ~~(c) 8~~                      (d) 6

$$(5^{27} + 3^{69})(9^{56} - 4^{11}) \times 7^{35}$$

$$(5+3)(9^4 - 4^3) \times 7^3$$

$$8 \times (1-4) \times 3$$

$$8 \times 7 \times 3 = \textcircled{8} \text{ Ans}$$



$$11. 633^{24} - (277)^{38} + 266^{54} = ?$$

(a) 5

(b) 8

(c) 1

(d) 2

$$3^{24} - 7^{38} + 6^{54}$$

$$3^4 - 7^2 + 6$$

$$1 - 9 + 6$$

⑧

←

$$7 - 9$$

Ans

$$12. 164^{\underline{169}} + 333^{\underline{337}} - 727^{\underline{726}} = ?$$

(a) 6

~~(b) 8~~

(c) 5

(d) 1

$$\underbrace{4^1 + 3^1 - 7^2}_{7 - 9}$$

$$13. \underline{777}^{666} + \underline{555}^{333} + \underline{888}^{222} + \underline{444}^{666} + \underline{111}^{444} + \underline{222}^{777} = ?$$

(a) 7 ✓✓

(b) 6

(c) 5

(d) 4

$$7^{66} + 5^{33} + 8^{22} + 4^{66} + 1 + 2^{77}$$

$$7^2 + 5 + 8^2 + 4^2 + 1 + 2^1$$

$$9 + 5 + 4 + 6 + 1 + 2$$

$$\Rightarrow \underline{27}$$

$$\begin{array}{lcl}
 1! & = & 1 \\
 2! & = & 2 \\
 3! & = & 6 \\
 4! & = & 24 \\
 5! & = & 120 \\
 6! & = & 720 \\
 7! & = & 5040
 \end{array}$$

$$\begin{aligned}
 5! &= 5 \times 4 \times 3 \times 2 \times 1 \\
 &= 120
 \end{aligned}$$

---


$$7! = 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1$$

$$120 \times 6 = 720$$

$$\begin{aligned}
 720 \times 7 &= \dots 0000 \\
 &= \dots 0000
 \end{aligned}$$

$$14. \quad 973^{234!} \times 234^{973!} = ?$$

(a) 5

~~(b) 6~~

(c) 1

(d) 8

$$\begin{aligned}
 & 99988877700 \div 4 \\
 & \Rightarrow 3 \times 4 \dots 00 \\
 & \Rightarrow 3^4 \times 4^4 \\
 & \text{Ans } 6 = 1 \times 6
 \end{aligned}$$



16.  $43\bar{3} \times 45\bar{6} \times 43\bar{N}$  का ईकाई अंक  $(N + 2)$  है तो  $N = ?$

~~(a) 5~~

~~(b) 8~~

~~(c) 3~~

~~(d) 1~~

$$\underbrace{3 \times 6 \times N}_{6 \Rightarrow 8} = \underbrace{N + 2}$$

Ans = 6



**ADITYA SIR**



**CLICK HERE**



**CLICK HERE**



**CLICK HERE**



**CLICK HERE**



**CLICK HERE**



**CLICK HERE**

